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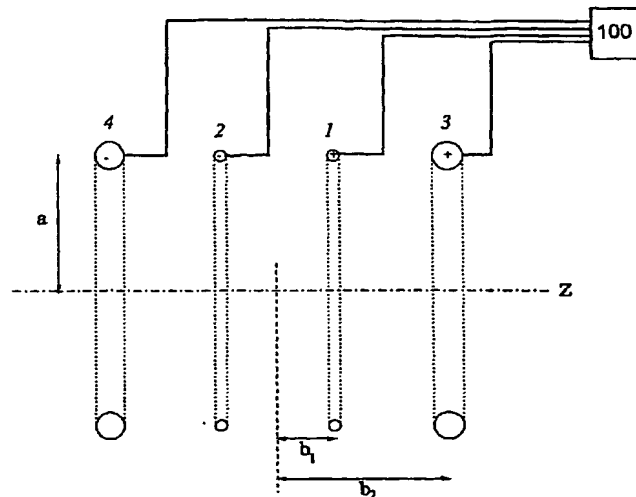
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(54) Title: **MAGNETIC FIELD GRADIENTS ADAPTED TO POSITION OF REGION BEING IMAGED**



(57) Abstract: A magnetic resonance apparatus comprises a magnet system for generating a magnetic field in a working volume. Magnetic gradient coils are used to generate one or more magnetic field gradients in the working volume so as to define regions from which magnetic resonance signals are obtained from a target material. A controller operates the gradient coils in use so as to apply one or more magnetic field gradients within each region. For each of the defined regions, the controller performs a method in which the one or more magnetic field gradients are controlled in accordance with the position of the said region with respect to the gradient coils, such that the one or more magnetic field gradients have a predetermined uniformity, thereby increasing the uniformity within regions at the periphery of the working volume.

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